

REMARKS

Responsive to the Office Action dated June 26, 2003, Applicant hereby makes the following response. The present application was filed on January 7, 2002 and included Claims 1-34. In a response to the 03/27/2003 Restriction Requirement, Applicant elected Claims 1-8, 12-14 and 16 with traverse and canceled Claims 9-11, 15, and 17-34 as being directed to a nonelected invention with the proviso that these claims may be prosecuted in a subsequent application. However, the Examiner has indicated that an amendment format to so cancel was not previously submitted. Applicant has therefore submitted a listing of claims indicating the cancellation of Claims 9-11, 15, and 17-34. Accordingly, Claims 1-8, 12-14 and 16 remain pending for prosecution with Claims 1 and 14 being independent.

I. Summary of the Claims

The present invention is concerned with a novel clear, crosslinked, polymeric gel composition. Clear, hydrophobic gel compositions typically turn opaque or cloudy when combined with water, even at extremely low levels. Moreover, in the presence of water, these gels exhibit a "wetness" or syneresis because of the incompatibility of the hydrophobic gel material and the water. Moreover, these hydrophobic gel compositions are incompatible with many desirable water-soluble additives including pH color indicators, fluorescent dyes, fragrance components, and cross-linking agents. Hydrophilic polymer gel compositions, on the other hand, typically do contain water. However, when hydrophobic liquids such as perfumes, insecticides, and insect repellants are added to the gel, the gels turn opaque, translucent or heterogenous. The present invention therefore discloses a polymeric gel composition that contains water yet remains

clear even with the addition of hydrophobic liquids such as perfumes, insecticides or insect repellants.

Independent Claim 1 recites such a gel composition comprising the reaction product of a microemulsion. The microemulsion contains from 1-70 wt.% of an anhydride functionalized polymer, from 0.1-40 wt.% of a cross-linking agent, from 0.01-50% wt.% surfactant, 0.01-30 wt.% water, and from 10-95 wt.% a hydrophobic liquid, based on the total weight of the polymeric gel composition.

Independent Claim 14 recites a clear, crosslinked, polymeric gel composition comprising the reaction product of a microemulsion. The microemulsion contains from 1-40 wt.% of an anhydride functionalized polymer selected from maleinized polybutadiene polymers, maleinized polyisoprene polymers, maleinized polybutadiene/styrene polymers or mixtures thereof. In addition to the polymer, the microemulsion contains from 0.1-20 wt.% of a polyamine cross-linking agent, from 0.1-20% wt.% anionic or cationic surfactant, and 0.1-10 wt.% water. The microemulsion also contains from 10-95 wt.% a hydrophobic liquid perfume, a hydrophobic liquid insecticide or a hydrophobic liquid insect repellant, based on the total weight of the polymeric gel composition, with the combined proportion of the water and the hydrophobic liquid perfume, hydrophobic liquid insecticide or hydrophobic liquid insect repellant equaling at least 30 wt.%, based on the total weight of the polymeric gel composition.

II. The 35 U.S.C. § 102(b) Rejections

A. Rejection of Claims 1-8 over Miyazaki

Claims 1-8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by French Patent Publication No. 2,455,068 to Miyazaki (hereinafter "Miyazaki").¹ Applicant respectfully submits that Claims 1-8 are not anticipated by Miyazaki because this reference fails

to disclose every element and limitation of these claims. Referring now to Claim 1, the preamble describes the present invention as a "clear, crosslinked, polymeric gel composition." Miyazaki does not disclose or even refer to a clear gel composition. Element (c) of Claim 1 of the present invention further requires the clear, crosslinked, polymeric gel composition to include "from 0.01-50% wt.% surfactant." As described in the specification and, in particular, the examples, this element is required for the reason that it is necessary to include a surfactant in order to produce a clear and stable gel. Miyazaki fails to disclose the use of a surfactant.

Moreover, the polymer system described by Miyazaki requires the pretreatment of a functionalized polymer with ammonia. This reaction product is then used to make the gel of the Miyazaki patent. Inclusion of ammonia is not only described by Miyazaki, it is required in order to prepare the gel composition. In fact, Miyazaki specifically states that "the use of ammonia is an important part of this invention." This element is also required by every claim of the Miyazaki reference. On the other hand, the present invention does not require use of ammonia-treated polymers at all.

Thus, because Miyazaki fails to disclose every limitation of independent Claim 1, this reference does not anticipate this claim or the claims depending therefrom and cannot therefore be used to support a rejection under § 102(b). Accordingly, Applicant respectfully requests withdrawal of this rejection.

B. Rejection of Claims 1-8, 12-14 and 16 over Minatono

Claims 1-8, 12-14 and 16 have rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,362,841 to Minatono et al. (hereinafter "Minatono"). Applicant respectfully submits that Claims 1-8, 12-14 and 16 are not anticipated by Miyazaki because this reference fails to disclose every element and limitation of these claims. As discussed above in connection with Claim 1, the present invention is directed to a *clear* polymeric gel composition. This

limitation is disclosed in the preamble of independent Claim 14 as well. Minatono's hydrophilic polymer composition contains between 4 to 400 parts by weight water per 100 parts by weight of Minatono's rubber component including liquid polyisoprene rubber or modified liquid polyisoprene rubber and a cross-linking agent or a plasticizer. When hydrophobic liquids, such as perfumes, insecticides, and insect repellants, are added to hydrophilic gels, such as that disclosed by Minatono, the resulting gel composition is opaque, translucent or heterogeneous *not* clear. Applicant has produced the Minatono gel composition by following the examples therein and all gels produced were opaque. A Declaration by Randall Richards in support thereof is attached hereto.

Thus, because Minatono fails to disclose every limitation of independent Claims 1 and 14, this reference does not anticipate these claims or the claims depending therefrom and cannot therefore be used to support a rejection under § 102(b). Accordingly, Applicant respectfully requests withdrawal of this rejection.

III. The 35 U.S.C. § 103(a) Rejections

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

With respect to objective evidence of nonobviousness, Applicant submits that the record supports the conclusion that there are long-felt but unsolved needs met by the present invention. The present invention is directed to the particular problem of providing a new and improved polymeric gel composition that is both aesthetically-pleasing and functionally-appropriate for a variety of applications including deodorizing gels, insect repelling gels, and the like. In particular, the present invention meets the existing need for a clear gel composition that remains clear, even after the addition of hydrophobic liquids such as perfumes, insecticides, and the like.

A. Rejection of Claims 1-8 over Miyazaki

Claims 1-8 were rejected, in the alternative, under 35 U.S.C. § 103(a) as obvious over Miyazaki. For the following reasons, Applicant respectfully submits that the present invention is not obvious under 35 U.S.C. § 103(a) and requests reconsideration and withdrawal of the § 103(a) rejection.

Miyazaki does not teach or suggest the claimed invention. As discussed above in connection with the § 102(b) rejection of Applicant's claims based upon the Miyazaki reference, there is no teaching or suggestion of a clear polymeric gel composition containing a surfactant which is used to make the gel composition both clear and stable. In fact, as discussed above, Miyazaki teaches away from the present invention. While Miyazaki requires the use of ammonia to pre-treat a functionalized polymer in order to create the gel composition disclosed in that reference, Applicant does not need or use ammonia as an ingredient of the present invention..

Finally, *prima facie* obviousness requires that there must be a reasonable expectation of success when prior art is modified or combined. In the present application, there is no reasonable expectation of success in achieving the present invention as claimed when the cited reference is modified. As discussed above, Miyazaki does not contain all the elements of independent Claim 1. Unless all the elements are taught by the reference, there can be no

success in modifying them. Accordingly, independent Claim 1 and the claims depending therefrom are nonobvious under 35 U.S.C. § 103(a).

B. Rejection of Claims 1-8, 12-14 and 16 over Minatono

Claims 1-8, 12-14 and 16 were rejected, in the alternative, under 35 U.S.C. § 103(a) as obvious over Minatono. For the following reasons, Applicant respectfully submits that the present invention is not obvious under 35 U.S.C. § 103(a) and requests reconsideration and withdrawal of the § 103(a) rejection.

Minatono does not teach or suggest the claimed invention. As discussed above in connection with the § 102(b) rejection, independent Claims 1 and 14 of the present invention are directed to a *clear* polymeric gel composition. There is no teaching or suggestion by Minatono to produce a clear polymeric gel composition. To the contrary, Minatono teaches away from the present invention. Minatono teaches a hydrophilic gel that, when combined with a hydrophobic liquid, is opaque in color rather than clear as claimed by Applicant.

Thus, at the time the present invention was made, none of the references cited by the Examiner teach or describe *all* of the limitations claimed by Applicant in independent claims 1 and 14 and the claims depending therefrom. It would therefore not have been obvious to one of ordinary skill in the art to provide a clear, cross-linked, polymeric gel composition as claimed by Applicant. Accordingly, independent Claims 1 and 14 and the claims depending therefrom are nonobvious under § 103 (a).

IV. Conclusion

Applicant respectfully requests withdrawal of the rejections and believes that the claims as presented represent allowable subject matter. However, if the Examiner desires, the applicant is ready for a telephone interview to expedite prosecution. As always, the Examiner is free to

Atty Docket No. 70012200.0065.0005
Express Mail No. EL 716466576 US

Application No. 10/040,412
Reply to 06/26/2003 Office Action

call the undersigned at 816.460.2516. Should any fees be necessitated by this response, the Commissioner is hereby authorized to deduct any such fees from Deposit Account No. 19-3140.

Respectfully submitted,

SONNENSCHEIN NATH & ROSENTHAL LLP

By


Lara Dickey Lewis, Reg. No. 48,161
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, IL 60606-1080
816-460-2516 (telephone)
816-531-7545 (facsimile)

ATTORNEYS FOR APPLICANT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/040,012 Confirmation No. 2270
Applicant : RICHARDS, Randall
Filing Date : January 7, 2002
TC/A.U. : 1616
Examiner : LEVY, Neil S.
Title : CLEAR, POLYMERIC GEL COMPOSITION AND METHOD
FOR PRODUCING SAME

Docket No. : 70012200.0065.0005
Customer No. : 26263

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

DECLARATION

I, RANDALL RICHARDS, declare and state as follows:

1. I am the inventor of the subject matter described and claimed in the above-noted patent application.

2. This Declaration is being made by me in support of the above-noted application in order to demonstrate that the gel compositions as described by Minatono et al. in U.S. Patent No. 4,362,841 produce opaque-colored gels and, thus, the claimed property of being a clear, cross-linked, polymeric gel composition is not inherent in the Minatono product.

3. The procedures and protocol set forth by Minatono in Examples 1, 2, 3, and 4 to create the hydrous gel claimed by Minatono were exactly reproduced in my laboratory. The final gel product obtained from each of the four examples was opaque in color. While not wanting to be bound to this theory, I believe that one of the reasons for the differentiation in color is that the micelles present in the Minatono gel composition are larger than the wavelength of visible light and, therefore, diffract or scatter the light thereby causing the gel to appear opaque or

Atty. Docket No. 70012200.0065.0005

Application No. 10/040,412

translucent. The micelles formed using the formula of the present invention, on the other hand, are smaller than the wavelength size of visible light and, therefore, appear clear.

4. Thus, the claimed property of being clear is not inherent in the Minatono et al. patent, nor are the claimed products of the above-noted application the same as those disclosed by Minatono.

5. I further declare that all statements made herein of my own knowledge are true and all statement made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful, false statements and the like are punishable by fine or imprisonment, or both, under §1001 if Title 18 of the United States Code, and such willful false statements may jeopardize the validity of any patents issued from the patent application.

Date: 9/18/03

Signed: Randall Richards
Randall Richards